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ABSTRACT

Research findings often fail to reach key decision-makers either in the proper form or in time to assist in decision-making. Also, little is known about major problems for which local directors need information, methods of seeking information used by these decision-makers, information normally used, or the criteria employed in selecting information. The purpose of this study was to identify the critical problems of local administrators of vocational education and the information sources they utilize. Data were collected from certain local administrators, selected by a stratified random sampling technique, through the use of telephone interviews and a mail questionnaire. Major conclusions include: (1) Local administrators generally perceived little need for information for use in problem resolution, (2) Most decision-making was in the absence of an information search, (3) Respondents desired experienced people as their major information source, and (4) The major criteria for utilization of print materials were the familiarity or degree of experience of the administrator with the materials, and the content quality. (GEB)

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Research and Development Series No. 84

Information Needs of Local Administrators of Vocational Education

THE CENTER FOR VOCATIONAL
AND TECHNICAL EDUCATION

THE OHIO STATE UNIVERSITY
1960 Kenny Rd., Columbus, Ohio 43210

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INFORMATION NEEDS OF LOCAL ADMINISTRATORS OF VOCATIONAL EDUCATION

J. David McCracken
Wilma B. Gillespie

The Center for Vocational and Technical Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

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FOREWORD

Local administrators of vocational and technical education hold key decision-making roles in program development and operation, often acting as determinants of information diffusion and adoption. Knowledge of the information needs of local administrators should provide a basis for improvement of information services and products. Such knowledge should also provide sound input for problem-oriented research, development, and diffusion activities, thereby resulting in more effective linkage of research and practice.

Appreciation is expressed to the project staff: J. David McCracken, who served as component director, and Wilma B. Gillespie, research associate. Acknowledgement also is due the thirty local administrators who participated during the data-collection phase.

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Robert E. Taylor
Director
The Center for Vocational
and Technical Education

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INFORMATION NEEDS OF LOCAL ADMINISTRATORS OF VOCATIONAL EDUCATION

CHAPTER 1

THE PROBLEM AND ITS SETTING

Introduction

Various groups have called for change in American education. Change, however, should be the logical outcome of purposeful, systematic, controlled, and critical investigation.

The Center for Vocational and Technical Education engages in programmatic research, development, and diffusion activities in order to strengthen the capacity of state education systems to provide effective occupational educational programs consistent with individual needs and manpower requirements. Problem resolution is enhanced by the affiliated ERIC Clearinghouse which provides a national information storage, retrieval, and dissemination system for vocational and technical education.

Utilization of knowledge in effecting change is dependent upon increased communication between researchers and practitioners. Educational change must include linkages to facilitate the flow of information from development to implementation. Decision-making may be enhanced by a process which provides needed information for choosing among alternatives.

Definition of the Problem

Research findings are not being incorporated into the mainstream of operating programs soon enough or in sufficient quantity. Information that is available often fails to reach key decision-makers either in the form or in time to assist in decision-making. Before information technologists are able to design effective systems to provide users with the information necessary for their work, a great deal must be learned about the behavior of user populations.

Research, development, diffusion, and information dissemination activities should relate to real problems of key personnel. The chief officer for the local administrative level for vocational and technical education is the local director. Little is known about major problems for which local directors need information, methods of seeking information used by these decision-makers, information sources normally used, or the criteria employed in selecting information.

Need for the Study

Knowledge of the information needs of local directors of vocational and technical education should provide a basis for improvement of information services and products and sound input for research, development, and diffusion activities thereby resulting in a more effective linkage of research and practice. This study was a continuation and extension of prior studies related to information dissemination and diffusion in vocational and technical education. These previous inquiries reflected the need for studies which would identify administrative problems, substantive information needs attendant to decision-making, and the methods, sources, and criteria used in decision-making. Application of resulting implications should result in improvement of information sources and services for those who administer local programs in vocational and technical education.

Authors of case studies, technical guides, and theory-oriented reports have increasingly reported research findings on the successful diffusion of new instructional programs and their local adoption. These reports may be classified into four categories: (1) case-studies of educational innovation diffusion; (2) theory-oriented studies that draw upon particular instances of education innovation to determine factors that influence successful diffusion and adoption of innovative programs; (3) studies that focus on particular school personnel as determinants of program diffusion and adoption; and (4) reports that define local, state, and national communication networks as agents of adoption and diffusion.[1]

Possible objectives for studying information needs and uses are explanation of observed phenomena of information use or expressed need, prediction of information use, and improvement of the utilization of information. The achievement of these objectives must be preceded by certain activities: description of observed information use, definition of convenient and appropriate concepts for describing and dealing with information use, and theorizing of causal or quantitative relationships between information use and associated factors.[2] Elements of all of these activities

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[1]Phillip K. Piele, "Review of Recent Literature on Educational Diffusion" (Paper commissioned by the National Federation for the Improvement of Rural Education in cooperation with ERIC Clearinghouse on Rural and Small Schools, October 1970.)

[2]Ben-Ami Lipetz, "Information Needs and Uses," in *Annual Review of Information Science and Technology*, ed. Carlos A. Cuadra (Chicago: Encyclopedia Britannica, 1970), Vol. V, p.3.

have been evident at different times in studies of information needs and uses which have appeared in the literature with increasing frequency since about 1963.[3]

The need for this study will be discussed in three general sections. "Information Dissemination and Diffusion" will cover publications that report data on efforts to determine dissemination. "General Users Studies" will report on techniques for observing or detecting information users and their needs, and studies on the determination of actual information needs and sources of information of selected targeted audiences will be reported in "Programmatic Efforts." The final section will summarize the need for the present study.

Information Dissemination and Diffusion

Several years ago Cuadra asked what was meant by "satisfying information need." The obscurity of this expression has been pointed out by O'Connor.[4] Some people equate it with "relevance," but disagreements about relevance are common both in practice and in theory. Other people seem to believe that they are freeing the notion of relevance from obscurities and errors by explicating it in terms of satisfying information need. Basic to the phrase is the perception of the problem and the resultant request negotiation by the user and his value judgment on relevance decisions about the extent to which his "need" was met.[5]

Persons with information needs are faced with determining which potential sources of need satisfaction will be accessed and what priorities will be attached to the accession. Problem solving may require one or several sources of information. For any given information need the user may identify one or more sources which could be approached for need satisfaction. Once alternative sources have been identified, some expectations or attractiveness relative to specific sources and information needs are established.[6]

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[3]William J. Paisley, "Information Needs and Uses," in *Annual Review of Information Science and Technology*, ed. Carlos A. Cuadra (Chicago: Encyclopedia Britannica, 1968), Vol. III, pp.1-30.

[4]J. O'Connor, "Retrieval of Answer-Providing Documents," in *American Documentation*, Vol. XIX, No. 4, pp.381-386.

[5]*Ibid.*

[6]Norman R. Baker, "Optimal User Search Sequences and Implications for Information Systems Operation," in *American Documentation*, Vol. XX, No.3, July 1969, pp.203-211.

When a question arises in the course of a vocational educator's work, he may try to learn an answer to it by thinking about it, experimenting, talking with a colleague, or reading. If he attempts to do the last but does not know which document to read, he may use a document retrieval system. In such a case he will try to retrieve one or more documents from which he can learn an answer(s) to his question(s). These documents may be answer-providing[7] in the sense that the user may (1) be able to infer and answer to his question from the document or a statement that he judges will help move him toward an answer; (2) be stimulated to think through or remember a statement which encourages or challenges him; or (3) alternatively shift the focus of the question to something else. These actions suggest the need for diversity in information services.

When research findings are made available to target groups the utilization of research is increased. Downie and Luke[8] tested the hypothesis that the pay-off from an agency's investment in research could be increased by systematically identifying and describing technological barriers and selectively disseminating them to knowledgeable scientists as "knowledge want-ads." The prime function of the problem resume in this instance was to establish direct person-to-person contact between the individual or organization with the problem and scientists (who were the sources of knowledge for its solution).

Baker, et al. collected data on about 300 ideas created in a divisional laboratory of a major U.S. corporation. Data analysis suggested that two pieces of information were required before an idea was generated: (1) knowledge of a need, problem, or opportunity relevant to the company; and (2) knowledge of a means or technique for satisfying the need, solving the problem, or capitalizing on the opportunity.[9]

The potential user of information, who is himself a member of a group or organization, will be affected by research findings, their acceptance or rejection, and by the administrative hierarchy.

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[7]J. O'Connor, Op. Cit., pp.381-386.

[8]Currie S. Downie and Ernest P. Luke, *Aerospace Research, United States Air Force* (Arlington, Va.: Office of Aerospace Research, June 1968).

[9]Norman R. Baker, J. Siegman, and Albert H. Rubenstein, "The Effects of Perceived Needs and Means of the Generation of Ideas for Industrial Research and Development Projects," in *I.E.E.E. Transactions on Engineering Management*, Vol. EM-14, No. 4, December 1967, pp.156-163.

Six factors which appeared to influence the utilization of HumRRO Research findings by the U.S. Army and nine factors which appeared to cause rejection of research have been identified. Factors influencing utilization were: (1) timeliness, (2) common interest, (3) product engineering, (4) concreteness, (5) acceptance by others, and (6) personal interest. Factors influencing rejection were: (1) poor communication, (2) lack of timeliness, (3) too drastic, (4) lack of strong support, (5) cost, (6) lack of engineering capability, (7) policy problems, (8) insufficient "salesmanship," and (9) "sacred cow."[10]

The features of an organization were examined in order to understand the organization and the way it affects information flow.[11] The basic premise was that a typical organization fosters two opposing conditions: (1) stability and orderliness in order to protect the functioning and internal relationships, and (2) stimulation of creativity and innovation in order to keep up with the myriad of changes that affect it.

Organization structure then has an effect on the flow of dissemination. Other barriers to communication and dissemination have been identified. Lippett suggested a model for adequate dissemination of research findings which takes into consideration four major barriers to effective communications: (1) diffusion of labor into task goals; (2) institutional distinctions; (3) development of professional reference groups; and (4) geographical divisions, solution-linking systems and roles, specialized communication media, and the development of new systems which enable researchers and practitioners to be part of the same organization.[12]

Information needs may be related to problem-solving and decision-making by administrators who seek to implement change and adopt innovation. Guba, in 1967 attributed the unsatisfactory

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[10]J. D. Lyons, "Factors Influencing Utilization of Research Findings in Institutional Change." Paper presented at a symposium at the convention of Southeastern Psychological Association, New Orleans, March 1966 (Alexandria, Va.: George Washington University, April 1966).

[11]Mark A. Frohman, *The Impact of the Characteristics of the Organization on Information Flow* (Ann Arbor, Mich.: Michigan University, 1969).

[12]Ronald Lippett et al., "A Comparative Analysis of the Research Utilization Process." Excerpts from a symposium at the annual meeting of the American Educational Research Association, Chicago, February 18, 1966.

operation of the diffusion function of the theory-practice continuum to the lack of an acceptable strategy. To remedy this situation, he recommended a four-part strategy with assumptions about the: nature of the practitioners who will be exposed to the strategy; state in which one wishes to leave the practitioners; nature of the agency or mechanism carrying out the diffusion activity; and substance of the innovation.[13]

A study[14] of the problems of successfully adopting innovation in a large university determined that the implementation of an innovation may be a function of six basic conditions: (1) the degree to which members of an organization have a clear understanding of an innovation; (2) the extent to which they are capable of behaving in accordance with new role expectations required by the innovation; (3) their willingness to make the necessary effort; (4) the degree to which the required materials and equipment are available; (5) the degree to which organizational arrangements are compatible with the innovation; and (6) the degree to which management carries out its responsibilities in the implementation phase of an innovation.

Successful linkage is achieved when user and resource system interact collaboratively simulating each others' problem-solving behavior. The need for diversity is stressed through the identification of factors which are highly related to successful dissemination and utilization. These factors have been identified as: linkage to internal and external resources; capability to marshall diverse resources; proximity to resources and other users; and synergy, i.e., the variety, persistence, and synchronization of messages and media. [15]

In a comparative analysis of dissemination and translation roles in education and other fields, three issues concerning the

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[13]Egon G. Guba, "Development, Diffusion, and Evaluation" (Paper prepared for the conference on Knowledge Production and Utilization in Educational Administration: Role Emergence and Reorganization. Cosponsored by the University of Oregon and the University Council for Educational Administration, Portland, Oregon, October 22-25, 1967).

[14]Everett M. Rogers, "Communication of Innovations in a Complex Institution," in *Educational Record*, Vol. XVIX, Winter 1968, pp. 67-77.

[15]Ronald G. Havelock et al., *A Comparative Study of the Literature on the Dissemination and Utilization of Scientific Knowledge* (Ann Arbor, Mich.: Center for Research on Utilization of Scientific Knowledge, Michigan University, July 1969).

institutional context of the linking role were identified by Havelock.[16] These were: (1) institutional barriers which affect knowledge dissemination and utilization; (2) institution types which most effectively support and control linking roles; and (3) institution types which serve as linkers.

General User Studies

Before information technologists are able to design effective systems to provide decision-makers with information necessary for their work, a great deal must be learned about the behavior of user populations. Administrators in education seek information to assist in major organizational problem-solving by obtaining substantive information for decision-making from information resources.

Three general classes of knowledge linkers (conveyor or carrier, consultant, and trainer); two classes of linkers in resource system (basic scientist and translator or adopter); and five classes of linkers in client systems (opinion-leader, innovator, defender, practitioner, and user) were described in a review of studies in the general problem of knowledge production and utilization.[17] Several divisions of knowledge production and utilization in the curriculum were examined to determine what sort of knowledge the field required, the form it must take to be effectively utilized, and the processes by which the required knowledge was created and put into appropriate form.[18]

Lipetz reported on a study by Menzel who had interpreted the results of several studies of the total information-seeking activity of scientists and technologists in terms of a complimentary

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[16]Ronald G. Havelock, *Dissemination and Translation Roles in Education and Other Fields: A Comparative Analysis* (Ann Arbor, Mich.: Institute for Social Research, Michigan University, 1967).

[17]Edmund C. Short, *A Review of Studies on the General Problem of Knowledge Production and Utilization.* A working paper, 1970. (ED 055 022 MF $0.65, HC $3.29)

[18]Edmund C. Short, "Knowledge Production and Utilization in the Curriculum." A paper presented at the annual meeting, AERA, New York, 1971.

relationship between an extremely flexible and many-sided informal system on the one hand, and a formal communication system on the other. The formal system was able to compete with the information system with respect to only a few of the many information needs of individuals. Among the information needs which were identified were: (1) promptness of acquisition of certain information; (2) selective direction of communications; (3) screening and evaluation of communications; (4) indications of implications; (5) retention of unscholarly but subtly important details in digests; and (6) rapid feedback.[19]

Programmatic Efforts to Determine Needs of Users in Vocational Education

Several efforts have been made to translate research into practice. Some of these have been reported by Allen and Gertsberger, Chorness et al., McCracken, and Magisos. Allen and Gersberger[20] found a direct relationship between perceived accessibility of information channels and several objective measures of utilization. No definite support was found for the hypothesis that the channels perceived highest in technical quality were those used most frequently. Accessibility influences the choice of sources of information to a greater extent than any other variable.

Chorness, Rittenhouse, and Heald, using a mailed questionnaire to approximately four hundred superintendents, specialists, consultants, principals, and teachers in sixty-three San Francisco Bay Area School Districts, identified the critical decision processes in the field of education the information sources and kinds of information which were used to support decision-making and planning. The results indicated that: (1) the most frequently used information sources were colleagues, principals, contacts at professional meetings, superintendents, and curriculum specialists; (2) modes of communication tended to be informal: (3) in twenty-four areas of educational planning, superintendents

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[19]Ben-Ami Lipetz, "Information Needs and Uses," in *Annual Review of Information Science and Technology*, ed. Carlos A. Cuadra (Chicago: Encyclopedia Britannica, 1970), Vol. V,p. 20..

[20]Thomas Allen and Peter G. Gertsburger, *Criteria for Selection of an Information Source* (Cambridge, Mass.: Alfred P. Sloan School of Management, Massachusetts Institute of Technology, 1967)

and principals averaged the highest levels of involvement in decision-making; and (4) lack of time to study problems, excessive focus on financial aspects, need to satisfy money groups, lack of research support, and failure to define goals were the major stumbling blocks to effective decision-makers.[21]

In a study by McCracken[22] on the utilization of information by state supervisory and teacher education personnel in vocational and technical education, some major conclusions were: (1) accessibility appeared to be the dominant factor influencing frequency of literature source utilization; (2) teacher educators and state supervisors tended to read interpretations of research to a greater extent than reports of original research; (3) "how to" answers were sought to a greater extent than "why" answers; (4) teacher educators and state supervisors usually conducted their own search for information; in conducting their own search, they expected to obtain satisfactory information for approximately three-fourths of their current work-related problems; (5) journals and periodicals were utilized to a greater extent than any other single professional literature source; (6) personal sources of information were utilized to a greater extent than literature sources; (7) literature sources rated high in technical content by vocational educators were perceived to be relatively inaccessible; and (8) a major portion of the variance associated with frequency of literature source utilization in resolving current work-related problems may be accounted for by a knowledge of subjects' perceived accessibility, ease of use, and technical content of and degree of experience with the literature sources.

The paucity of reliable information about individuals and groups who use an information dissemination system (which is an

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[21]M. H. Chorness, C. H. Rittenhouse, and R. C. Heald, "Use of Resource Material and Decision Processes Associated with Educational Innovation: A Literature Survey" (Stanford, Calif.: Stanford Research Institute, Far West Laboratory for Research and Development, 1969).

[22]John David McCracken, "The Utilization of Information by State Supervisory and Teacher Education Personnel in Vocational and Technical Education" (Unpublished Ph.D. dissertation, Columbus, Ohio: The Ohio State University, 1970).

important problem for systems designers) prompted Magisos[23] to conduct a target audience study. Research coordinating units in seven states which were cooperating with The Center for Vocational and Technical Education in a pilot program for the development of state information dissemination systems assisted in the study. Some of the conclusions which were based upon the findings developed by analyzing the responses from the seven target populations follow: (1) the vast audience of practitioners in vocational and technical education at the local level were in need of better access to information products and services, especially preceding the beginning of school terms; (2) large amounts of time were used by vocational-technical educators in gathering information for their work; (3) sources of information used most were rated lower in adequacy of information by vocational-technical educators; (4) different forms of information were more useful to vocational-technical educators in different target audience categories; (5) characteristics of information that are important to vocational-technical educators were relevance to the problem, speed of obtaining, currentness, and brevity--although brevity was less important to teacher educators and researchers than authenticity; (6) vocational-technical educators preferred direct, personal contact with familiar and convenient sources of information, but were willing to travel for information needed to solve important problems in their work; and (7) vocational-technical educators received faster service from most information sources than they expected, but service was much slower than was desirable.

The critical problems of state directors of vocational education and the information sources which they utilized were reported by McCracken.[24] Some conclusions related to major problems of state directors were: (1) the major problems of state directors of vocational education related to administrative leadership and finance; (2) the greatest time and effort was expended in resolving problems related to finance; and (3) information was needed to resolve 87.9 percent of the reported problems. Conclusions related to methods used to seek information

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[23]Joel H. Magisos, *Interpretation of Target Audience Needs in the Design of Information Dissemination Systems for Vocational-Technical Education* (Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University, 1971).

[24]J. David McCracken, *Information Needs of State Directors of Vocational Education* (Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University, 1972).

were: (1) participants were more likely to seek information through personal contacts than by searching literature; (2) the resolution of problems was constantly delegated to subordinates; and (3) information agencies were seldom used. Some conclusions related to sources used to provide information were: (1) study participants utilized reports and pamphlets almost to the exclusion of bibliographies, books, guides, indexes, and periodicals; (2) substantive personnel were utilized most as personal resources, but information specialists were also used extensively by many state directors; and (3) state directors interacted with their peer groups within their states more than with any other personal source in seeking information for problem resolution. The following conclusions relate to criteria for information source utilization: (1) printed materials were generally selected because of the type and/or form of the information; and (2) personal information sources of a substantive nature were utilized because of job responsibility, quality of work, understanding of the problem, or the type or form of data provided.

Summary

Research findings are not being incorporated into the mainstream of operating programs soon enough or in sufficient quantity. The information that is available or accessible often fails to reach key vocational education decision-makers in the form and in time to assist them in the decision-making process. Identification of the critical problems of key decision-makers in vocational and technical education and the information used in their decision-making should provide a basis for further development of information dissemination systems.

The growing complexity of society has resulted in increased attention to the problem of knowledge production, dissemination, and utilization. Federal agencies and private groups are working to develop information dissemination systems. A comprehensive information system should: (1) exist to disseminate information, not to archive it; (2) through its holdings, reflect user needs, not the size of the knowledge base; and (3) reflect diffusion strategies in the dissemination of information.[25]

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[25]William Paisley, "Improving an 'ERIC-Like' Information System" (Stanford, Calif.: Stanford University, unpublished paper, 1971, p. 3).

Concerning the latter, Brickell,[26] in a prepared paper on "Alternative Diffusion Strategies" for the staff of The Center for Vocational and Technical Education at The Ohio State University, described the characteristics of practitioners, the adoption setting, the innovations, and summarized the desirable characteristics and diffusion tactics. One of the diffusion tactics was dissemination of information. About this, Brickell said:

> It is generally believed that while mass distribution of information at a low unit cost is suitable at the early stages of adoption when practitioners are not yet aware that the innovation exists, it must be supplemented by more elaborate, more expensive communication techniques such as personal contact if the prospective adopter is to be moved along from awareness to actual adoption.

User studies in vocational education are needed in order to determine how information services to target groups can be improved. One important target group in vocational education is the administrator of the local administrative unit who holds a key decision-making role in the administrative structure as a determinant of information dissemination.

Purpose and Objectives of the Study

The purpose of this study was to identify the critical problems of local administrators of vocational education and the information sources they utilized. Objectives were formulated to guide sample section; instrument development; and data collection, analysis, and interpretation. Objectives essential to the conduct of the study were:

1. Identification of critical problems for which little substantive information is available;
2. Description of methods used in seeking information;
3. Identification of information sources normally used; and
4. Identification of criteria employed in selection of information sources.

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[26] Henry M. Brickell, "Alternative Diffusion Strategies," A paper prepared for the staff at The Center for Vocational and Technical Education, The Ohio State University, August 1971.

Methodology

Accomplishment of the study objectives required the cooperation over a 31-week period, of the local administrators of vocational education who participated in the study. In order to collect and analyze the necessary data, it was necessary to determine the population for the study and select a representative sample. For data collection the instruments and procedures used in a previous study of state directors of vocational education were reviewed and revised. Finally, methods of data analysis were determined.

Population and Sample

The population for the study consisted of the local administrators of vocational education in the continental United States. The local administrator of vocational education was defined as the person at the local level who is responsible for organizing and administering a minimum of three program areas in vocational education.

Five states and ten alternate states were selected for the study by a stratified random sampling technique. States were first stratified into five groups according to the expenditures of federal, state, and local funds for vocational education for the fiscal year of 1969.[27] A table of random numbers was used to select a state and two alternates from each group. The states which were randomly selected were Alabama, Missouri, North Carolina, Oklahoma, and Wyoming.

The list of local administrators was obtained by writing the state director of vocational education or the director of the research coordinating unit in each state requesting the names of all local administrators of vocational education at the secondary level. The list of post-secondary institutions (technical institutes, area vocational schools, and community colleges) was prepared from *Educational Directory 1969-1970*.[28] The intent was to select two secondary comprehensive schools; two secondary area

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[27]Alvin Renetzky and Jon S. Greene, eds., *Stanford Education Almanac 1971* (Los Angeles, Calif.: Acedemic Media, Division of Computing and Software, 1971).

[28]U.S. Government Printing Office, *Educational Directory 1969-1970, Higher Education* (Washington, D.C.: U.S. Department of Health, Education and Welfare, U.S. Government Printing Office, 1971).

vocational schools; and two community colleges, technical institutes or post-secondary vocational technical schools from each state by using a table of random numbers. Some adjustments had to be made because some states lacked area vocational schools and/or post-secondary vocational schools. However, six administrative units and six alternates were randomly selected from each state. The administrative officer for each agency was contacted and thirty participants agreed to assist in the study.

The low number of participants and their concentration in five states provided a recognized limitation in the generalizability of the results of this study.

Instrument Revision

The telephone interview schedule and mail questionnaire used in a previous study, Information Needs of State Directors of Vocational Education,[29] were revised in order to meet the objectives of this study. A copy of the mail questionnarie (Appendix A) and a copy of the telephone interview schedule (Appendix B) are included.

Data Collection

Subjects in the study agreed to participate prior to data collection. Data were collected by fifteen telephone interviews over a 31-week period between November 8, 1971 and June 5, 1972. The mail questionnaire was also administered during this time period. A total of 450 telephone interviews were conducted during which 611 major professional problems were identified. Thirty participants completed the fifteen interviews. The mail questionnaire was completed and returned by all thirty participants.

Data Analysis

Study objectives were primarily descriptive in nature; therefore, data were analyzed by summarizing the information and utilizing descriptive statistics. Two sets of data cards were prepared: (1) a set of data cards representing information in the mail questionnare with a sample size of thirty; and (2) data cards contain-

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[29] J. David McCracken, *Information Needs of State Directors of Vocational Education* (Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University, 1972).

ing information on each of the 611 problems identified in telephone interviews. These data cards were computer tabulated and summarized in tables similar to those in this report. The decision was made to present most of the data for description as frequencies and percentages of group response levels. No data were presented which would reveal individuals or their districts.

Findings reported in Chapter II are in the form of tabled descriptive information and narrative summary. These Summary descriptions lead to the conclusions reported in Chapter III. Data were presented to meet each study objective.

CHAPTER 2

FINDINGS

The major purpose of this study was to identify the critical problems of and the information sources utilized by administrators at the local administrative level of vocational education. The purpose was accomplished by describing the sample, identifying major problems, describing information-seeking methods, identifying information sources, and identifying criteria utilized in information source selection. Tables report data gathered in a mail questionnaire and fifteen telephone interviews with each of the thirty study participants.

Data are presented in tables as frequencies, percentages, or means and/or median responses to questionnaire and telephone interview items (see Appendices). The accompanying narrative highlights specific findings evident in the tables. Conclusions, implications, and recommendations are reported in Chapter III.

Description of the Sample

The thirty participants in the study were administrators of local administrative units of vocational education who were responsible for organizing and administering a minimum of three program areas in vocational education. Inspection of the data revealed that one-half of the participants reported six to fifteen years experience at the local level of vocational education. Thirty-three percent had sixteen or more years of experience. Only 17 percent had from one to five years of experience. The median was 14.5 years of experience.

Ten of the respondents were in the 40-49 age group while nine reported their age in the 50-59 group. Only one was less than 29 years old and four were 60 years of age or older. The median age was 48 years.

Ten local supervisors had sixteen years or more experience in vocational education at the local level (Table 2). Only five were in the one to five years experience group. The median years experience for the sample was fourteen years.

Table 1

AGE OF PARTICIPANTS

Age in Years	Number	Percentage
29 or less	1	3.33
30 - 39	6	20.00
40 - 49	10	33.33
50 - 59	9	30.00
60 or more	4	13.33
TOTAL	30	99.99

Table 2

EXPERIENCE IN LOCAL-LEVEL OF VOCATIONAL EDUCATION

Years of Experience	Number	Percentage
1 - 5	5	16.67
6 - 10	8	26.67
11 - 15	7	23.33
16 or more	10	33.33
TOTAL	30	100.00

In post-high school professional preparation, Table 3 shows that, with twenty-nine responding to this question, sixteen reported having six to seven years, three had eight to nine years, and nine had five or less years. The median was 6.3 years of post-high school professional preparation.

Table 3

POST-HIGH SCHOOL PROFESSIONAL PREPARATION

Years	Number	Percentage
5 or less	9	31.03
6 - 7	16	55.17
8 - 9	3	10.34
10 and above	1	3.44
TOTAL	29	99.98

Seventy percent of the respondents reported that they had participated in graduate training within the last five years as can be seen in Table 4. Thirty percent reported negatively to this question.

Table 4

GRADUATE TRAINING DURING PAST 5 YEARS

Graduate Training	Number	Percentage
Yes	21	70
No	9	30
TOTAL	30	100

Size of School Population Served

Twenty-four of the thirty respondents served secondary school students. The size of the secondary school population served by the local administrators of vocational education varied across the states from one with less than 100 students enrolled to four with 10,001 or above. Eleven of the local administrators reported their secondary enrollments in the 101-500 group; the number reporting enrollments from 501 to 10,000 was fairly evenly distributed. The median secondary school population served by respondents was 584 students. This information is summarized in Table 5.

Table 5

SECONDARY SCHOOL POPULATION SERVED

Population	Number	Percentage
100 or less	1	4.16
101 - 500	11	45.83
501 - 1,000	3	12.50
1,001 - 3,000	2	8.33
3,001 - 10,000	3	12.50
10,001 or above	4	16.66
TOTAL	24	99.98

Table 6 reveals eighteen of the thirty respondents served post-secondary students. The post-secondary school population served by the local administrators of vocational education was, as could be expected, much lower than the number of secondary students served. Eight reported enrollments of 100 or less and six reported enrollments between 101-500. One respondent indicated that he served between 501-1,000 students and one above 3,000. Two served from 1,001-3,000 students. The median post-secondary population served by respondents was 225.5 students.

Table 6

POST-SECONDARY SCHOOL POPULATION SERVED

Population	Number	Percentage
100 or less	8	44.44
101 - 500	6	33.33
501 - 1,000	1	5.55
1,001 - 3,000	2	11.11
Above 3,000	1	5.55
TOTAL	18	99.98

Table 7 shows that fourteen respondents served adult students. The adult school population served by the participants was less than either the post-secondary or secondary populations. Of the fourteen local directors who served adults in vocational education, four reported enrollments from 501-1,000 and three less than 100 adult enrollments. Only one reported serving more than 3,000 adult vocational education students. The median adult school population served by respondents was 563.00.

Identification of Critical Problems

A total of 611 major professional problems of local administrators of vocational education were identified in fifteen telephone interviews with each participant over a 31-week period of time. Problems were cross-tabulated with time of year/interview number, need for information, quantity of needed information, and time and effort required in seeking information.

Each major professional problem which was identified was categorized as relating to one of six major areas: educational

change, teachers, instruction, administrative leadership, major social issues, or finance.[30] Reported in Table 8 are the frequencies and percentages relating to these six major areas.

The major professional problems reported with the greatest frequency by the local administrators were those relating to instruction. Forty-six percent of the problems reported were in this category. Approximately 37 percent of the problems reported were those relating to administrative leadership, with 9 percent and 8 percent related to finance and educational change respectively. An insignificant number of problems related to teachers are major social issues. Instruction and administrative leadership with 406 of the 611 problems appeared to be the areas of greatest concern for the local administrators of vocational education.

Of the 281 problems dealing with instruction reported in Table 9, 103 were related to student personnel services, 78 with curriculum, 53 with quality and supply of personnel, and 28 with evaluation. Nineteen problems related to inservice education.

Of the 225 problems relating to administrative leadership, eighty-nine concerned program planning as reflected in Table 10. Forty-eight related to decision-making, forty related to community and human relations, and thirty-two related to equipment and facilities. Eight concerned administrative organization and four were reported for quality of leadership and board-superintendent relations.

Fifty-six problems were reported relating to finance (Table 11). Of these, fifty-four related to state and federal aid while two of the problems related to legislative control.

In Table 12, a total of forty-six problems were reported which were concerned with educational change. More than half of these related to organizing for change while fourteen were categorized under state and federal influences effecting change.

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[30]Keith Goldhammer et al., *Issues and Problems in Contemporary Educational Administration* (Eugene, Ore.: University of Oregon, The Center for the Advanced Study of Educational Administration, 1967).

Table 7

ADULT SCHOOL POPULATION SERVED

Population	Number	Percentage
100 or less	3	21.42
101 - 200	2	14.28
201 - 500	2	14.28
501 - 1,000	4	28.57
1,001 - 3,000	2	14.28
Above 3,000	1	7.14
Total	14	99.97

Table 8

MAJOR PROFESSIONAL PROBLEMS OF LOCAL DIRECTORS OF VOCATIONAL EDUCATION

Problems Relating To	Number	Percentage
Instruction	281	45.99
Administrative Leadership	225	36.82
Finance	56	9.16
Educational Change	46	7.52
Teachers	2	0.32
Major Social Issues	1	0.16
Total	611	99.97

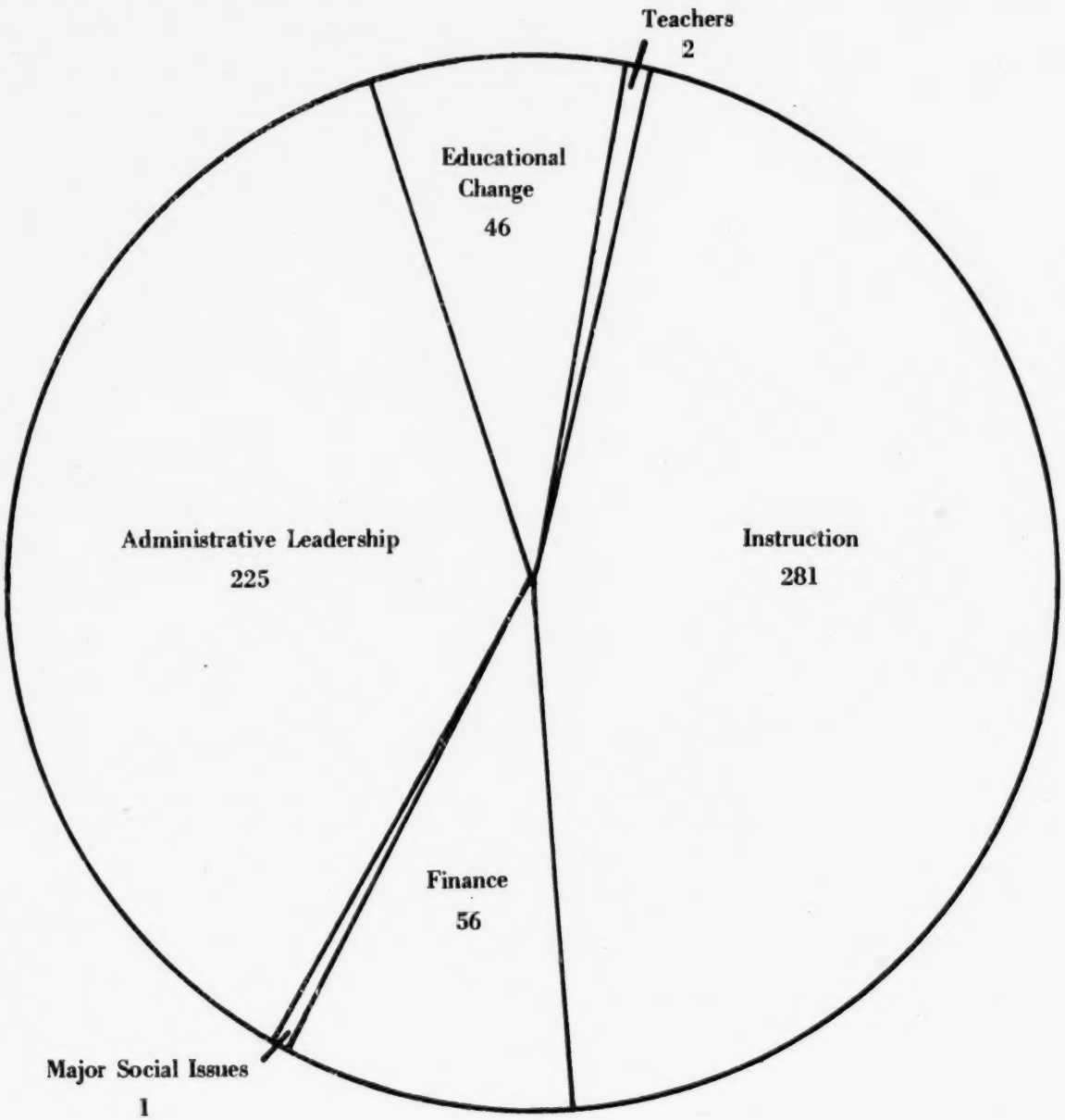
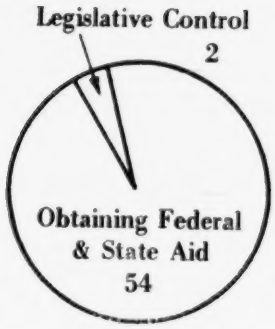
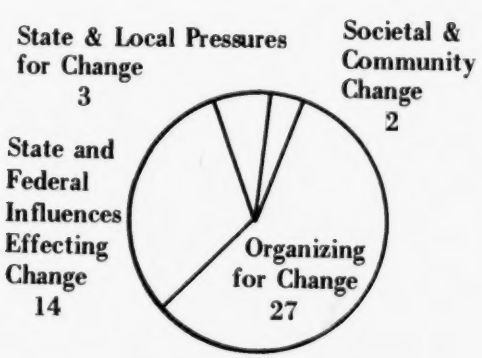


Fig. 1. MAJOR PROBLEMS

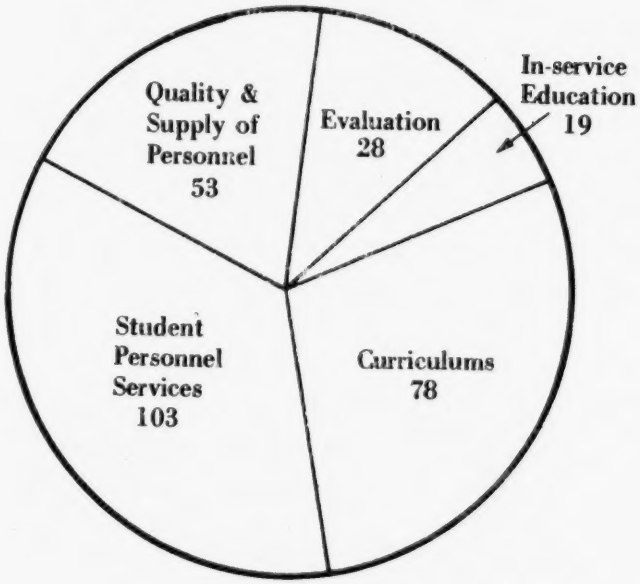
ADMINISTRATIVE LEADERSHIP



FINANCE



EDUCATIONAL CHANGE



INSTRUCTION

Fig. 2. PROBLEMS OF LOCAL ADMINISTRATORS

Table 9

PROBLEMS RELATING TO INSTRUCTION

Problem	Number	Percentage
Student Personnel Services	103	36.65
Curriculums	78	27.75
Quality and Supply of Personnel	53	18.86
Evaluation	28	9.96
Inservice Education	19	6.76
TOTAL	281	99.98

Table 10

PROBLEMS RELATING TO ADMINISTRATIVE LEADERSHIP

Problem	Number	Percentage
Program-Planning	89	39.55
Decision-Making	48	21.33
Community and Human Relations	40	17.78
Equipment and Facilities	32	14.22
Administrative Organization	8	3.55
Quality of Leadership	4	1.77
Board - Superintendent	4	1.77
TOTAL	225	99.97

Table 11

PROBLEMS RELATING TO FINANCE

Problem	Number	Percentage
Obtaining Federal and State Aid	54	96.42
Legislative Control	2	3.57
TOTAL	56	99.99

Table 12

PROBLEMS RELATING TO EDUCATIONAL CHANGE

Problem	Number	Percentage
Organizing for Change	27	58.68
State and Federal Influences Effecting Change	14	30.43
State and Local Pressures for Change	3	6.52
Societal and Community Change	2	4.37
TOTAL	46	100.00

The local administrators reported only two problems relating to teachers and one concerned with major social issues. The former involved negotiations and the latter with a racial problem. These three problems were removed from subsequent data tables.

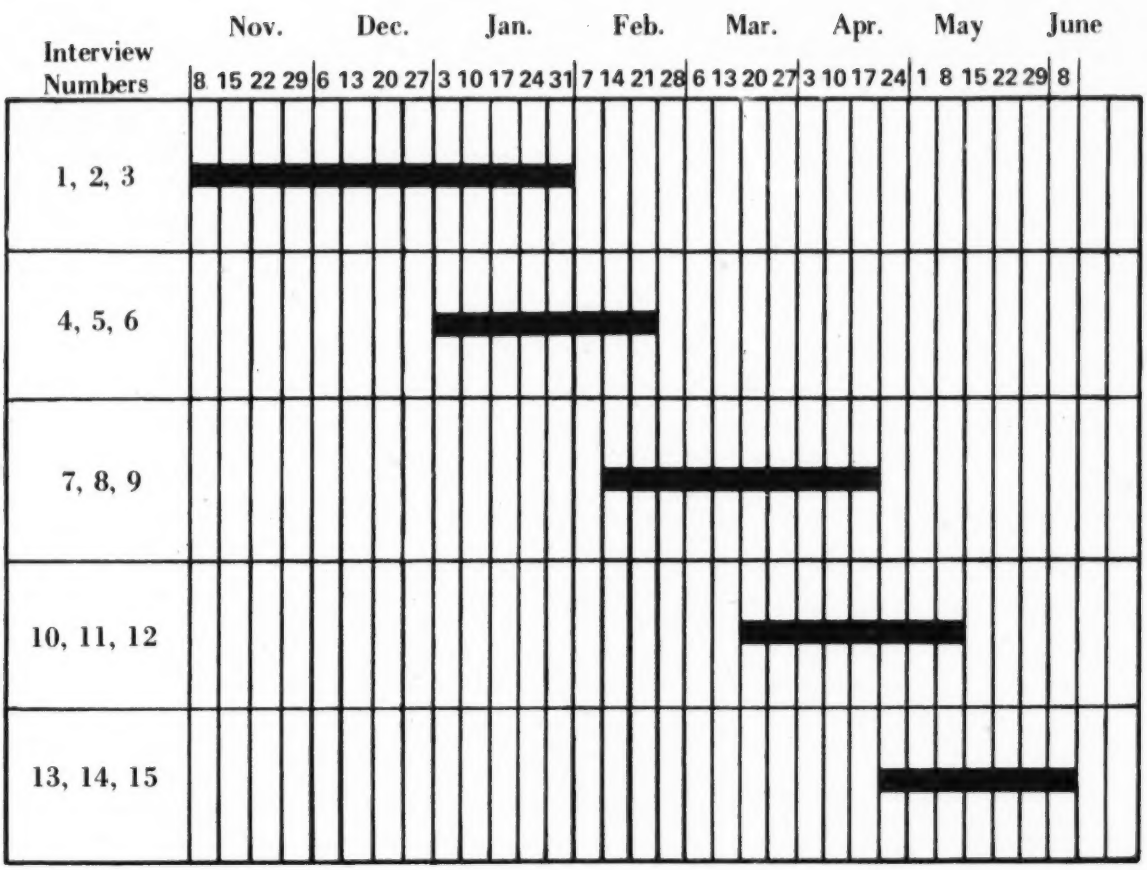


Fig. 3. TIME OF YEAR AND INTERVIEWS

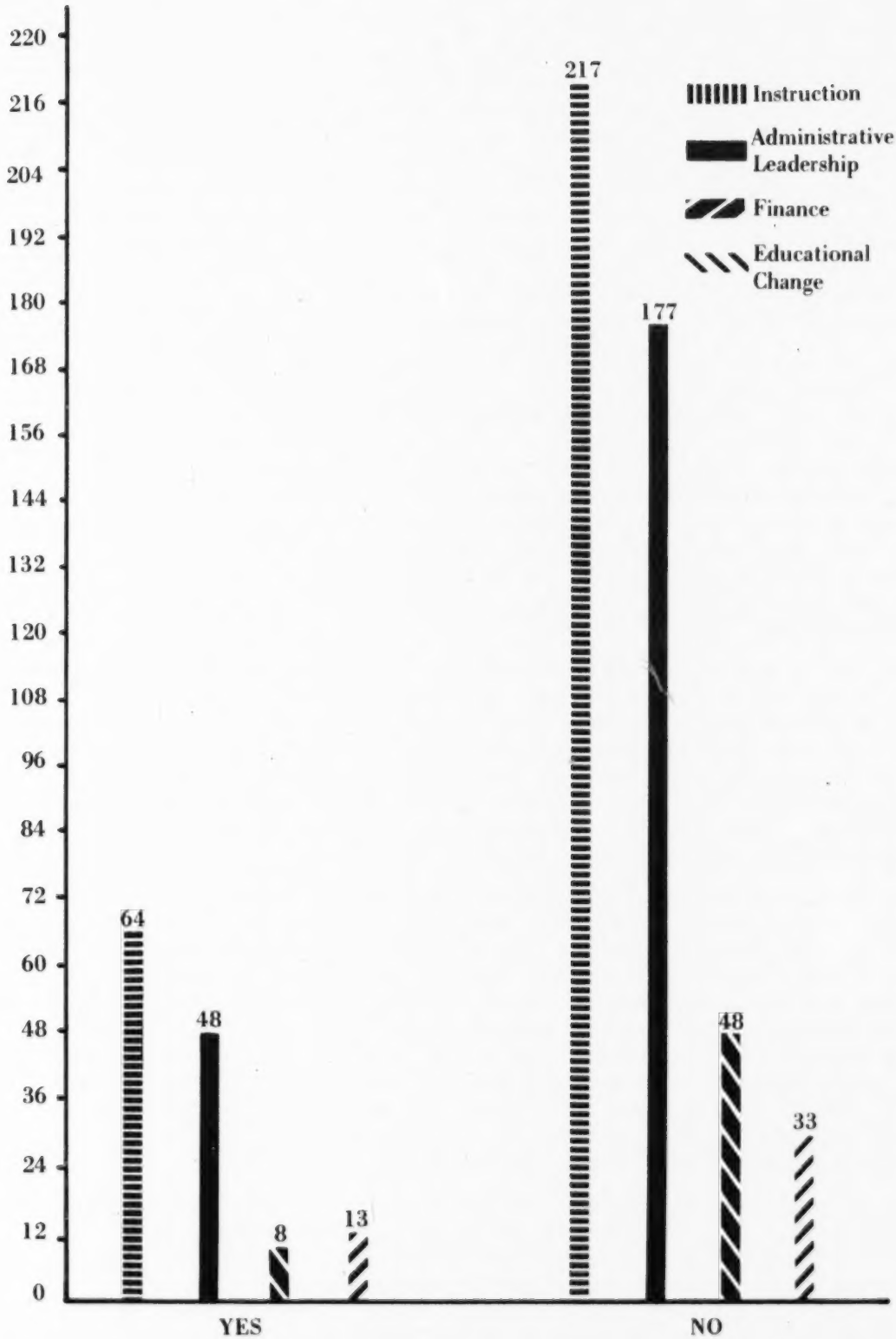


Fig. 4. MAJOR PROFESSIONAL PROBLEMS AND NEED FOR INFORMATION IN DECISION-MAKING

The relationship between the time of year and the interview number is shown in Figure 3. Table 13 relates the interview numbers to the major professional problems reported by local directors of vocational education. Of the forty-six problems relating to educational change, thirteen were reported during interviews four through six which were conducted from January 3 through February 21. The other problems relating to educational change ranged between seven and nine for each interview group. The 281 problems reported by the local directors which dealt with instruction were fairly evenly distributed across the interview period. Problems related to administrative leadership appeared to occur most frequently between November 8 and January 31 and between March 13 and May 15. Such problems occurred less frequently during the last three interviews which were conducted between May 1 and June 5 and the two groups of interviews conducted between January 3 and April 17. The highest percentage of finance related problems were reported during the interviews conducted between April 17 and June 5. In the mail questionnaire, the local administrators identified thirty-one problem areas for which they generally had difficulty locating substantive information. Of the thirty-one problems identified, twenty-three were in the instruction category, six concerned administrative leadership and two related to finance.

There was great variation noted between the educational problems and the need for information in decision-making. Of the 608 problems reported in Table 14, and Figure 4, 475 needed no information for decision-making and 133 of the problems needed information for decision-making. The range among the problem categories which needed information for decision-making was from 14.3 percent for problems related to finance to 28.3 percent for those related to educational change.

Major professional problems were related to the quantity of information needed for decision-making in Table 15. Participants were asked to indicate whether a minimal, moderate, or substantial amount of information was needed. Of the 133 problems reported which needed information for decision-making, seventy-eight were reported as needing substantial information, thirty-eight needing moderate information, and seventeen needing minimal information. The local administrators reported needing substantial information for most of their educational problems. The range was between 75.6 percent for problems related to educational change to 54 percent for those related to administrative leadership.

Participants were asked to indicate the time and effort required in seeking information for each major professional problem as indicated in Table 16. Of the 133 problems reported by the local directors, fifty-nine were reported as needing moderate time and effort in seeking information, fifty needing substantial time and effort, and twenty four needing minimal time and effort.

Table 13

INTERVIEW NUMBER AND EDUCATIONAL PROBLEMS

Problem	1 - 3		4 - 6		7 - 9		10 - 12		+13 - 15		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%
Educational Change	7	15.21	13	28.26	9	19.56	9	19.56	8	17.39	46	99.98
Instruction	60	21.35	49	17.44	55	19.57	56	19.93	61	21.71	281	100.00
Administrative Leadership	57	25.33	36	16.00	35	15.56	56	24.89	41	18.22	225	100.00
Finance	8	14.23	10	17.86	12	21.43	5	8.93	21	37.50	56	99.95
TOTAL	132	21.71	108	17.67	110	18.09	126	20.72	181	21.55	608	99.74

Table 14

MAJOR PROFESSIONAL PROBLEMS AND NEED FOR INFORMATION IN DECISION-MAKING

Problems	Information Needed					
	Yes		No		Total	
	No.	Percentage	No.	Percentage	No.	Percentage
Instruction	64	22.78	217	77.22	281	100.00
Administrative Leadership	48	21.33	177	78.67	225	100.00
Finance	8	14.29	48	85.71	56	100.00
Educational Change	13	28.26	33	71.74	46	100.00
TOTAL	133	21.87	475	78.13	608	100.00

Table 15

MAJOR PROFESSIONAL PROBLEMS AND QUANTITY OF INFORMATION NEEDED FOR DECISION-MAKING

Problem	Quantity of Information							
	Minimal		Moderate		Substantial		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Instruction	7	11.29	19	30.65	36	58.06	62	100.00
Administrative Leadership	7	14.00	16	32.00	27	54.00	50	100.00
Finance	1	12.50	2	25.00	5	62.50	8	100.00
Educational Change	2	15.38	1	7.69	10	76.92	13	99.99
TOTAL	17	12.78*	38	28.57*	78	58.64*	133	99.99

* this figure is the mean figure of that vertical column

Table 16

MAJOR PROFESSIONAL PROBLEMS AND TIME AND EFFORT REQUIRED IN SEEKING INFORMATION

Problem	Time and Effort							
	Minimal		Moderate		Substantial		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Instruction	11	17.74	27	43.55	24	38.71	62	100.00
Administrative Leadership	9	18.00	23	46.00	18	36.00	50	100.00
Finance	2	25.00	3	37.50	3	37.50	8	100.00
Educational Change	2	15.38	6	46.15	5	38.46	13	99.99
TOTAL	24	18.05	59	44.36	50	37.59	133	100.00

Description of Methods

Data were obtained to describe the methods used by local directors of vocational education to resolve their major professional problems. The methods used to obtain information and their frequency of use will be reflected. Decision processes used when no information was required for problem resolution will also be presented.

The participants reported non-use for delegation, searching files, using retrieval indexes and telephoning. Of the 105 problems reported, consultation was used fifty-three times, interview/visitation twenty-eight times, and conducting a survey twelve times. The other methods used for obtaining information on critical problems were reported being used only two or three times. Inspection of Table 17 reveals that participants were more likely to seek information utilizing personal contact (i.e., consultation, interview/visitation, correspondence) than by searching literature (i.e., use of an information agency). In 13.3 percent of the cases, the local directors of vocational education reported that they conducted a case study, a survey, or an experiment to obtain the necessary information.

After the participants indicated the information-seeking method that would be used in resolving a specific problem, they were asked to indicate to what extent they would utilize this method to resolve similar future problems. Table 18 reflects the frequency of projected use of the various methods. The data in this table confirm that respondents would generally utilize similar methods in resolving future problems. It appeared that some problems were generally resolved through use of an information agency, others were resolved through personal interaction, and others by conducting a survey or research study.

There were 475 problems reported which required no information for decision-making (Table 19). When no information was needed, problems were most often resolved cooperatively with the involved parties. In 78 percent of the cases, problems were resolved cooperatively. Respondents resolved the problem arbitrarily in 16 percent of the cases. Other methods were seldom used.

Identification of Sources

Sources of information used by local administrators of vocational education to resolve their critical problems were identified. Data were gathered concerning the type of information desired, form of needed information, material actually used in problem resolution, personnel used as information sources, frequency of interaction with various groups to seek information, frequency of use of information and governmental agencies, and frequency of referral to certain print media.

Participants reported that they needed information to resolve 133 problems. The type of information desired was reported for 106 cases (see Table 20). In sixty-nine cases, information from similarly involved or experienced persons was desired; survey research was desired twelve times, and experimental results eight times; expect opinion was preferred in seven cases and demographic studies in eight cases. Descriptive research was preferred to experimental research.

The form of information needed to resolve critical problems is shown in Table 22. In fifty of the 113 frequencies reported, the actual document or data was needed. In sixty-three cases, the information needed to be summarized, synthesized, or evaluated. Participants needed summarized information for 24 percent, review and evaluation of information for 19 percent, and synthesized information for 12 percent of the problems.

Table 22 reveals that local directors of vocational education used guides for 32.5 percent of the problems and reports/monographs/pamphlets for 27.3 percent; they used periodicals for 22.1 percent; books were used to resolve 7.8 percent of the problems and indexes were used in 6.5 percent of the cases. Charts and filmstrips and bibliographies were seldom used in problem resolution.

Table 23 responses were obtained by telephone interview in response to a query concerning what personnel the local director used as information sources to resolve their major professional problems. Technical/clerical personnel were not used by the local directors. Substantive personnel were used for ninety-four of the 134 problems reported for which the local directors needed information. Administrators at a higher level were used for twenty-two of the problems and information specialists for eight. Substantive personnel served as the major personal information source.

Table 17

METHODS USED TO OBTAIN INFORMATION ON PROBLEMS

Method	Frequency	Percent
Consultation	53	50.48
Interview/Visitation	28	26.67
Survey	12	11.42
Information Agency-Outside	3	2.86
Business/Industry	3	2.86
Case Studies or Experiment	2	1.90
Correspondence	2	1.90
Advisory Council	2	1.90
TOTAL	105	99.99

Local administrators of vocational education interacted from one to five times per month with various groups to seek information in 139 of the 183 interactions reported (Table 24). They interacted least with the local superintendent and board. The median frequency of interaction with all other groups was two times per month.

The Center for Vocational and Technical Education, the state research coordination units and Educational Resources Information Center (ERIC) were reported used by the local directors of vocational education from one to six times per month by approximately one-half of the local administrators (Table 25). The National Technical Information Service (NTIS), School Research Information Service (SRIS), and Dissertation Abstracts (DATRIX), were not used by approximately twenty-five of the local directors. Twenty-four of the local administrators reported that they never used "other" information agencies while six reported using others between one and three times per month.

The participants used state and local institutions to a greater extent than federal institutions as shown in Table 26.

Table 18

FREQUENCY OF USE OF INFORMATION-SEEKING METHODS

Method	Occasionally		Often		Constantly		Total		Median
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	
Consultation	10	19.23	30	57.69	12	23.07	52	99.99	Often
Interview	9	32.14	15	53.57	4	14.29	28	100.00	Often
Survey	3	25.00	3	25.00	6	50.00	12	100.00	Often
Business/Industry	1	33.30	2	66.60	0	0.0	3	99.90	
Information Agency	0	0.0	2	66.60	1	33.30	3	99.90	Often
Case Studies/ Experimentation	0	0.0	0	0.0	2	100.00	2	100.00	
Advisory Council	0	0.0	0	0.0	2	100.00	2	100.00	
TOTAL	23	22.54	52	51.00	27	26.47	102	99.97	

Table 19

DECISION PROCESS WHEN NO INFORMATION WAS REQUIRED FOR PROBLEM RESOLUTION

Process	Number	Percentage
Cooperative	372	77.99
Arbitrary	78	16.35
Directive	12	2.52
Other	11	2.31
Projection	3	0.63
Reason	1	0.21
TOTAL	477	100.01

Table 20

TYPE OF INFORMATION DESIRED FOR USE IN PROBLEM RESOLUTION

Type	Number	Percentage
Experienced People	69	65.09
Survey Research	12	11.32
Experimental Research Results	8	7.55
Demographic Studies (DATA)	8	7.55
Expert Opinion (in written form)	7	6.60
Case Studies	2	1.88
TOTAL	106	99.99

Table 21

FORM OF NEEDED INFORMATION

Form	Number	Percentage
Actual Data or Document	50	44.24
Summarized Information	27	23.89
Evaluated Information	22	19.46
Synthesized Information	14	12.39
TOTAL	113	99.98

Table 22

MATERIALS USED FOR PROBLEM RESOLUTION

Materials	Number	Percentage
Guides	25	32.47
Reports and Pamphlets	21	27.27
Periodicals	17	22.07
Books	6	7.79
Indexes	5	6.49
Film Strips and Charts	2	2.60
Bibliographies	1	1.30
TOTAL	77	99.99

Table 23

PERSONNEL USED AS INFORMATION SOURCES

Problems	Personnel: Information Specialists		Substantive Personnel		Administrative at Higher Level		None of These		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Instruction	5	7.94	43	68.25	12	19.05	3	4.76	63	100.00
Administrative Leadership	2	4.00	36	72.00	9	18.00	3	6.00	50	100.00
Educational Change			11	84.62	2	15.38			13	100.00
Finance	1	12.50	4	50.00	2	25.00	1	12.50	8	100.00
TOTAL	8	5.97*	94	70.15*	25	18.66*	7	5.22*	134	100.00

* this figure is the mean of the vertical column

Table 24

FREQUENCY OF INTERACTION PER MONTH WITH VARIOUS GROUPS TO SEEK INFORMATION

Groups	Frequency of Interaction								
	None		1 - 5		6 or more		Total		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	Median
Local or County Superintendent or Board	7	26.92	16	61.54	3	11.53	26	99.99	1.0
State Supervisors or Consultants	1	3.85	24	92.31	1	3.84	26	100.00	2.0
Peer Group In Local Area	5	20.00	19	76.00	1	4.00	25	100.00	2.0
Peer Group Outside Local Area	5	17.24	23	79.31	1	3.45	23	100.00	2.0
Clientele	6	26.09	16	69.57	1	4.34	23	100.00	2.0
Advisory Council	5	17.24	22	75.86	2	6.89	29	99.99	2.0
Business/Industry	3	12.00	19	76.00	3	12.00	25	100.00	2.0
TOTAL	32	17.49	139	75.96	12	6.56	183	100.00	

Table 25

FREQUENCY OF USE PER MONTH OF INFORMATION AGENCIES

Agencies	Frequency of Use								
	Not Used		1 - 3		4 - 6		Total		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	Median
State RCU	14	46.67	14	46.67	2	6.67	30	100.00	1 - 3
The Center	13	43.33	14	46.67	3	10.00	30	100.00	1 - 3
ERIC	14	46.67	15	50.00	1	3.33	30	100.00	1 - 3
NTIS	25	83.33	3	10.00	2	6.67	30	100.00	Not used
SRIS	24	80.00	2	6.67	4	13.33	30	100.00	Not used
DATRIX	25	83.33	3	10.00	2	6.67	30	100.00	Not used
Other	24	80.00	6	20.00	0	00.00	30	100.00	Not used
TOTAL (mean)	19.86		8.14		2.0		30		

Table 26

FREQUENCY OF USE PER MONTH OF STATE AND FEDERAL INSTITUTIONS

	Frequency of Use								
	Not Used		1 - 3		4 - 6		Total		
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	Median
Colleges and Universities	4	13.33	23	76.66	3	10.00	30	99.99	
SDE Research Office	6	20.00	22	73.33	2	6.66	30	99.99	
Regional Planning Commissions	21	70.00	7	23.33	2	6.66	30	99.99	
State Planning Office or Development Board	21	40.00	14	46.66	4	13.33	30	99.99	
U.S. Dept. of Commerce	20	66.66	6	20.00	4	13.33	30	99.99	
U.S. Dept. of Labor	13	43.33	14	46.66	3	10.00	30	99.99	
USOE	19	63.33	9	30.00	2	6.66	30	99.99	
Local Agencies	6	20.00	18	60.00	6	20.00	30	100.00	
TOTAL	101	42.08	113	47.08	26	10.83		99.99	

Colleges and universities, the state department of education research office, and local agencies were used with the greatest frequency. The U. S. Departments of Commence and Labor were not used by most of the local directors. The U. S. Office of Education was reported by eleven of the respondents and regional planning commissions by nine.

The local administrators were asked to what extent they utilized certain nationally available print media. Table 27 reveals that twenty-seven of the local directors reported using *Industrial Arts and Vocational Education, The Occupational Quarterly Journal*, reports of research projects, research reports, and convention and workshop reports. Twenty-six of the respondents reported using the *American Vocational Journal* and convention and workshop reports. The *American Vocational Journal* was reported used by twelve of the local administrators "constantly" while twelve reported they used it "often." *Abstracts of Instructional Materials in Vocational and Technical Education* (AIM) was reported used by twenty-three of the local directors with the greatest frequency occuring in the "occasionally" category. *Abstracts of Research Materials in Vocational and Technical Education* (ARM) was used by twenty of the participants with fourteen using it "occasionally."

Identification of Criteria

A major objective of this study was to identify criteria employed by local administrators of vocational education in selecting information sources. Each participant was asked to state the reason for selection of an information source after he had indicated that what source he used.

Table 28 reports the perceived criteria for use of materials as sources of information. Accessibility was mentioned only once as the criteria for use of materials and this was for bibliographies. Familiarity or degree or experience was the criteria with the greatest number of frequencies twenty-five while the content or quality was the criteria in twenty-one cases. Collectively these two criteria accounted for forty-six out of the fifty-eight frequencies noted. The local directors used transparencies or filmstrips with the greatest frequency and content or quality as the criteria.

Table 29 reports the perceived criteria for use of people within the local administrative unit as information sources. Major criteria for selection of people as information sources was because of the content or quality of the information they provided (reported seventy-three times), type or form of data (reported thirty-seven times), and for other reasons (reported fourteen times).

Table 27

FREQUENCY OF REFERRAL TO CERTAIN PRINT MEDIA

Print Media	Frequency of Referral										
	Never		Occasionally		Often		Constant		Total		Median
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	Median
Periodicals											
American Vocational Journal	4	13.33	2	6.67	12	40.00	12	40.00	30	100.00	Often
Industrial Arts & Vocational Education	3	10.00	5	16.67	12	40.00	10	33.33	30	100.00	Often
Manpower	7	23.33	14	46.67	6	20.00	3	10.00	30	100.00	Occasionally
The Occupational Outlook Quarterly	3	10.00	11	36.67	10	33.33	6	20.00	30	100.00	Often
Monograph of The Center for Vocational and Technical Education											
Reports of Research Education	3	10.00	16	53.33	7	23.33	4	13.33	30	99.99	Occasionally
Conference and Workshop Reports	4	13.33	14	46.67	8	26.67	4	13.33	30	100.00	Occasionally
Bibliography Series	10	33.33	16	53.33	4	13.33	0	0	30	99.99	Occasionally
Review and Synthesis of Research	7	23.33	15	50.00	8	26.67	0	0	30	100.00	Occasionally
Monographs of Other Agencies											
Research Reports	3	10.00	15	50.00	9	30.00	3	10.00	30	100.00	Occasionally
Conference and Workshop Reports	3	10.00	15	50.00	10	33.33	2	6.67	30	100.00	Occasionally
Bibliographies	12	40.00	13	43.33	5	16.67	0	0	30	100.00	Occasionally
Research Summaries	5	16.67	16	53.33	5	16.67	4	13.33	30	100.00	Occasionally
Indexing and Abstracting Services											
AIM	9	30.00	14	46.67	5	16.67	2	6.67	30	100.00	Occasionally
ARM	10	33.33	14	46.67	4	13.33	2	6.67	30	100.00	Occasionally
CIJE	16	53.33	10	33.33	4	13.33	0	0	30	99.99	Never
Dissertation Abstracts	17	56.67	12	40.00	1	3.33	0	0	30	100.00	Never
Education Index	12	40.00	9	30.00	7	23.33	2	6.67	30	100.00	Occasionally
Psychological Abstracts	18	60.00	9	30.00	2	6.67	1	3.33	30	100.00	Never
RIE	13	43.33	9	30.00	7	23.33	1	3.33	30	99.99	Occasionally
TOTAL	159	27.89	229	40.18	126	22.11	56	9.82	570	100.00	

Table 28

PERCEIVED CRITERIA FOR USE OF MATERIALS AS SOURCES OF INFORMATION

Criteria	Bibliographies		Indexes		Periodicals		Reports/ Monographs		Transparencies and Filmstrips		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Familiarity/Degree of Experience	2	8.00	6	24.00	4	16.00	2	8.00	11	44.00	25	100.00
Content - Quality	1	4.76	3	14.29	9	42.86	2	9.52	6	28.57	21	100.00
Low Cost	2	33.33	0	0	2	33.33	0	0	2	33.33	6	99.99
Type of Data/Form	0	0	1	20.00	1	20.00	1	20.00	2	40.00	5	100.00
Accessibility	1	100.00	0	0	0	0	0	0	0	0	1	100.00
TOTAL	6	10.34	10	17.24	16	27.59	5	8.62	21	36.20	58	99.99

Table 29

PERCEIVED CRITERIA FOR USE OF PEOPLE WITHIN THE DIVISION AS INFORMATION RESOURCES

Criteria	Information Specialist		Substantive Personnel		Directors Higher Level		Total	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Content Quality	4	5.47	57	78.08	12	16.44	73	99.99
Type/Form of Data	4	10.81	26	70.27	7	18.92	37	100.00
Other	0	0	7	50.00	7	50.00	14	100.00
Accessibility	0	0	4	100.00	0	0	4	100.00
Low Cost	0	0	1	50.00	1	50.00	2	100.00
TOTAL	8	6.15	95	73.08	27	20.77	130	100.00

Summary

The purpose of this study was to identify the critical problems of and the information sources utilized by local administrators of vocational education. Findings are summarized under Descriptions of the Sample, Identification of Critical Problems, Identification of Sources, Description of Methods, and Identification of Criteria.

Descriptions of the Sample

Five states were selected in a stratified random sample and six local administrators of vocational education were randomly selected from each state. The median local administrator was 48 years of age with 14.5 years of experience at the local level of vocational-technical education. He had completed 6.3 years of post-high school preparation, had graduate training within the past five years, and served 584 secondary, 225 post-secondary, and 563 adult students.

Identification of Critical Problems

Major problems of local administrators of vocational education, in order of frequency of occurrence, were those related to instruction, administrative leadership, finance, and educational change. Two problems were reported which concerned teachers and one with critical social issues. Little relationship was noted between the subject of the major problems and the interview numbers (time of year when the interviews were conducted). Four hundred and seventy-five out of the 611 problems reported needed no information in order to solve them. Problems related to finance needed the least amount of information and those related to instruction required the largest amount of information. Those problems related to instruction required the greatest amount of time and effort in seeking information while those related to educational change and finance required the least.

Description of Methods

The local directors used most information-seeking methods "often." They used consultation and interview or visitation methods with the greatest frequency. Personal contact through consultation and interviewing was first and conducting a survey was second.

Identification of Sources

Sources of information used by participants were identified. The participants reported that they needed information to resolve 133 problems. Similarly involved or experienced persons were utilized in resolving 65.1 percent of the 133 problems, survey research in 11 percent, and experimental research in 7.6 percent. In 44.2 percent of the 133 cases, the actual document or data was needed, and for 55.7 percent, the problems required that information be synthesized or evaluated. The participants used guides and reports or monographs for approximately 60 percent of the problems. Substantive personnel were utilized to the greatest extent as personal sources of information, followed by administrators at higher levels. Technical or clerical personnel were not utilized by the local directors and information specialists were seldom used.

The major groups with which the local administrators interacted were state superintendent or state consultants and with their peer group. Information agencies, such as the State RCU, The Center for Vocational and Technical Education, and ETIC were used by approximately 50 percent of the participants. Three-fourths of the participants did not use other information agencies. The local administrators used state institutions to a greater extent than federal. The print media used by the largest number of local directors were *Industrial Arts and Vocational Education, The Occupational Quarterly Journal,* and the *American Vocational Journal* as well as reports of research, conventions, and workshops.

Identification of Criteria

Major criteria for use of printed materials were familiarity or degree of experience and content or quality. The major criterion for utilization of people as information sources was because of the content or quality of the information sought and the type or form of data required.

CHAPTER 3

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The findings of the study were the basis for conclusions, implications, and recommendations having possible significance for researchers and developers, information and diffusion specialists, and local administrators of vocational and technical education.

Conclusions

Conclusions are presented by section. Each section relates to one of the major objectives of the study.

Major Problems of Local Administrators

Conclusions relating to major problems of local administrators were:

1. Most problems related to instruction or administrative leadership.

2. Few problems related to teachers or major social issues.

3. Local administrators were primarily concerned with administering curriculum, instruction, and programs.

4. Student personnel services, curriculum, and the quality and supply of personnel were the major subproblems within the problem area of instruction.

5. Major subproblems relating to administrative leadership concerned program-planning, decision-making, community and human relations, and facilities.

6. The obtaining of adequate finances for program development and operation was of concern to the respondents.

7. Local administrators generally perceived little need for information for use in problem resolution.

8. When information was needed, moderate to substantial amounts of time were used for information-seeking.

Methods Used to Seek Information

Conclusions relating to the methods used to seek information were:

1. Respondents first attempted to resolve problems through personal contacts (consultations, visits, and interviews).

2. Outside information agencies were used to resolve only 3 percent of the problems.

3. The community was not used heavily as a resource in problem resolution.

4. Most decision-making was in the absence of an information search.

5. Decisions were generally made cooperatively, utilizing the expertise of others.

Sources Used to Provide Information

Conclusions relating to sources used to provide information were:

1. Respondents desired experienced people as their major information source.

2. Literature most used by respondents included guides, reports and periodicals.

3. Substantive personnel on the staff were the most often used personal information sources.

Criteria for Information Source Utilization

Conclusions relating to criteria for information source utilization were:

1. The major criterion for utilization of personal information sources was the quality of information they could provide.

2. The major criteria for utilization of print materials were the familiarity or degree of experience of the administrator with the materials, and the content quality.

Implications

Implications may be derived from the findings and conclusions of this study for information dissemination agencies, state departments of education, and local school districts.

Information Dissemination Agencies

Implications for information dissemination agencies include:

1. In-service education programs need to be provided for local administrators concerning the value of information in problem resolution and the use of information dissemination systems.

2. There is a need for information specialists to act as personal contacts to link information dissemination agencies with practitioners.

3. Information needs to be packaged in a form easily applicable to problem resolution.

4. Information needs to be provided local administrators on their major problems (student personnel services, curriculum, quality and supply of personnel, program planning, decision-making, community and human relations, and facilities).

5. Information needs to be known about, easily used, and trusted by local administrators.

State Departments of Education

Implications for state departments of education include:

1. Local administrators rely upon their state department of education for resolution of finance-related problems.

2. States might maintain a list of consultants and their fields of expertise so local administrators might systematically select personal sources of information.

3. States could enhance information utilization by developing linkages of information dissemination systems and practitioners.

Local School Districts

Implications for local school districts include:

1. Local districts might add information specialists to their staffs. Such specialists could search for, summarize, and evaluate information for decision-making.

2. Local districts could more effectively utilize community resources in resolving problems in vocational education.

3. Local districts could develop their own local information resources to provide accessible information within the district.

4. Local districts could learn much about other districts by effectively utilizing information dissemination agencies at state and national levels.

Recommendations

Additional areas for research have been suggested by this study.

1. Research of the same type as this study to determine the critical information needs of and factors influencing information utilization by teachers of vocational and technical education.

2. Research to determine how various target audiences perceive the usefulness of information products.

3. Evaluative studies of information dissemination systems and products to determine how they might more nearly meet user needs.

4. Research to relate critical problems identified in this study to existing job descriptions and task inventories of local administrators of vocational education.

5. Research to determine the effectiveness of various types of linkages between information systems and users of information.

BIBLIOGRAPHY

Allen, Thomas, and Gertsburger, Peter G. *Criteria for Selection of an Information Source.* Cambridge, Mass: Alfred P. Sloan School of Management, Massachusetts Institute of Technology, 1967.

Baker, Norman R. et al. "The Effects of Perceived Needs and Means of the Generation of Ideas for Industrial Research and Development Projects." *I.E.E.E. Transaction on Engineering Management*, Vol. EM-14, No. 4, December 1967, pp. 156-163.

Brickell, Henry M. "Alternative Diffusion Strategies." A paper prepared for the staff at The Center for Vocational and Techincal Education, The Ohio State University, August 1971.

Chorness, M. H. et al. "Use of Resource Material and Decision Processes Associated with Educational Innovation: A Literature Survey." Stanford, Calif: Stanford Research Institute, Far West Laboratory for Research and Development, 1969.

Downie, Currie S., and Luke, Ernest P. *Aerospace Research, United States Air Force.* Arlington, Va.: Office of Aerospace Research, June 1968.

Frohman, Mark A. *The Impact of the Characteristics of the Organization on Information Flow.* Ann Arbor, Mich: University of Michigan, 1969.

Goldhammer, Keith, et al. *Issues and Problems in Contemporary Educational Administration.* Eugene, Ore: University of Oregon, The Center for the Advanced Study of Educational Administration, 1967.

Guba, Egon G. "Development, Diffusion, and Evaluation." Paper prepared for the conference on Knowledge Production and Utilization in Educational Administration: Role Emergence and Reorganization. Cosponsored by the University of Oregon and the University Courcil for Educational Administration, Portland, Oregon, October 22-25, 1967.

Havelock, Ronald G. *Dissemination and Translation Roles in Education and Other Fields: A Comparative Analysis.* Ann Arbor, Mich.: Institute for Social Research, University of Michigan, 1967.

Havelock, Ronald G., et al. *A Comparative Study of the Literature on the Dissemination and Utilization of Scientific Knowledge.* Ann Arbor, Mich.: Center for Research on Utilization of Scientific Knowledge, University of Michigan, July 1969.

Lipetz, Ben-Ami. "Information Needs and Uses." *Annual Review of Information Science and Technology,* (Edited by Carlos A. Cuadra). Chicago, Ill.: Encyclopedia Britannica. Vol. III (1968), pp. 1-30.

Lippett, Ronald, et al. " A comparative Analysis of the Research Utilization Process." Excerpts from a symposium at the annual meeting of the American Education Research Association, Chicago, February 18, 1966.

Lyons, J. D. "Factors Influencing Utilization of Research Findings in Institutional Change." Paper presented at a symposium at the convention of Southeastern Psychological Association, New Orleans, March 1966, Alexandria, Va.: George Washington University, April 1966.

Magisos, Joel H. *Interpretation of Target Audience Needs in the Design of Information Dissemination Systems for Vocational-Technical Education.* Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University, 1971.

McCracken, J. David. *Information Needs of State Directors of Vocational Education.* Columbus, Ohio: The Center for Vocational and Technical Education, The Ohio State University, 1972.

McCracken, John David. "The Utilization of Information by State Supervisory and Teacher Education Personnel in Vocational and Technical Education." Unpublished Ph.D. dissertation, The Ohio State University, 1970.

O'Connor, J. "Retrieval of Answer-Providing Documents." *American Documentation,* Vol. XIX, No. 4, pp. 381-386.

Paisley, William J. "Information Needs and Uses." *Annual Review of Information Science and Technology,* (Edited by Carlos A. Cuadra). Chicago, Ill: Encyclopedia Britannica, Vol. III (1968), pp. 1-30.

Paisley, William J. "Improving an 'ERIC-Like' Information System." Stanford, Calif.: Stanford University, Unpublished paper, 1971.

Piele, Phillip K. "Review of Recent Literature on Educational Diffusion." Las Cruces, New Mexico: National Federal for the Improvement of Rural Education in cooperation with ERIC Clearinghouse on Rural and Small Schools, October 1970.

Renetzky, Alvin, and Greene, Jon S., eds. *Stanford Education Almanac 1971.* Los Angeles, Calif.: Academic Media, Division of Computing and Software, 1971.

Rogers, Everett M. "Communication of Innovations in a Complex Institution." *Educational Record*, Vol. XVIX, Winter 1968, pp. 67-77.

Short, Edmund C. *A Review of Studies on the General Problem of Knowledge Production and Utilization.* A working paper, 1970. (ED 055 022, MF $0.65, HC $3.29).

Short, Edmund C. "Knowledge Production and Utilization in the Curriculum." A paper presented at the annual meeting, AERA, New York, 1971.

U. S. Government Printing Office. *Educational Directory 1969-1970, Higher Education.* Washington, D. C.: U. S. Department of Health, Education and Welfare, 1971.

APPENDIX A

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION

Phone (614) 486-3655

THE OHIO STATE UNIVERSITY
1960 KENNY ROAD
COLUMBUS, OHIO 43210

February 10, 1972

The enclosed questionnaire is designed to provide data for The Center study on "Information Needs of Local Administrators of Vocational and Technical Education." We appreciate your willingness to participate in this study.

I am requesting that you take the following action:

1. Fill out the questionnaire, following instructions contained within it.

2. Place the completed questionnaire in the envelope provided and mail it to me.

No individual responses or school districts will be revealed in the report of this study.

Cordially,

J. David McCracken
Information Specialist

JDM:kk

Enclosure

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THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION

INFORMATION NEEDS OF LOCAL ADMINISTRATORS
OF VOCATIONAL-TECHNICAL EDUCATION

Questionnaire

Directions: Please complete the questions with a check mark ( ) on the appropriate line or with a written answer. Answers will be kept in the strictest confidence and be used only in the tabulation of group data analysis.

1. What amount of professional preparation (post-high school) have you completed?

   Number of years . . . . . _____

2. Have you had graduate training within the last five years?

   Yes _____ No _____

3. What is your age?

   29 years or less . . . . . _____
   30-39 years . . . . . _____
   40-49 years . . . . . _____
   50-59 years . . . . . _____
   60 or more years . . . . . _____

4. How long have you worked at a local level of vocational-technical education?

   1-5 years . . . . . _____
   6-10 years . . . . . _____
   11-15 years . . . . . _____
   16 or more years. . . . . _____

5. Check the school(s) your local division of vocational Education office serves:

   Secondary schools . . . . . _____
   Post-secondary schools. . . . . _____
   Adult vocational schools. . . . . _____

6. What is the approximate student population that your office serves:

   Secondary school population . . . . . _____
   Post-secondary school population. . . . . _____
   Adult school population . . . . . _____

10/65

7. Rank order (1 as high) each type of person who works for you and whom you use to seek information.

Information specialist (a professional nonsubstantive assistant that helps gather information such as the librarian, curriculum specialist, etc.) . . . . . _____
Substantive personnel (supervisors, teachers, etc). _____
Technical/clerical . . . . . _____

8. Approximate the frequency of use per month for each type of group which does not work for you but with which you interact to seek information.

Local or county superintendent and board . . . . _____
State supervisors or consultants . . . . . _____
Peer group in local area . . . . . _____
Peer group outside of local area . . . . . _____
Clientele. . . . . _____
Advisory council . . . . . _____
Business/industry. . . . . _____

9. Approximate the frequency of use per month of information agencies you use to seek information for solving problems.

The State Research Coordinating Unit (RCU) . . . . . _____
The Center for Vocational and Technical Education. . _____
Educational Resources Information Center (ERIC). . . _____
National Technical Information Service (NTIS or formerly know as CFSTI. . . . . _____
School Research Information Service (SRIS) . . . _____
University Microfilms - DATRIX . . . . . _____
Other (please specify) _____

10. Approximate the frequency of use per month of state and federal institutions you use to seek information for decision-making.

Colleges and universities . . . . . _____
Office of research in state department of education. . . . . _____
Regional planning commissions . . . . . _____
State planning office or development branch . . _____
U. S. Department of Commerce. . . . . _____
U. S. Department of Labor . . . . . _____
USOE or regional USOE offices . . . . . _____
Local agencies. . . . . _____
Other (specify) _____

11. Identify each print media that you use in terms of closeness of availability and frequency of referral.

FREQUENCY OF REFERRAL
1 - Constant
2 - Often
3 - Upon occasion
4 - Never

	FREQUENCY OF REFERRAL
Periodicals	
American Vocational Journal	_____
Industrial Arts and Vocational Education	_____
Manpower	_____
The Occupational Outlook Quarterly	_____
Monographs of The Center for Vocational and Technical Education	
Reports of Research Projects	_____
Conference and Workshop Reports	_____
Bibliographic Series	_____
Reviews and Syntheses of Research	_____
Monographs of Other Agencies	
Research Reports	_____
Conference and Workshop Reports	_____
Bibliographies	_____
Research Summaries	_____
Indexing and Abstracting Services	
Abstracts of Instructional Materials (AIM)	_____
Abstracts of Research Materials (ARM)	_____
Current Index to Journals in Education (CIJE)	_____
Dissertation Abstracts	_____
Education Index	_____
Psychological Abstracts	_____
Research in Education (RIE)	_____
Other (please specify)	_____

12. In what major problem areas do you generally have difficulty locating sufficient substantive information?

_____

_____

_____

The Center for Vocational and Technical Education

INFORMATION NEEDS OF STATE AND
LOCAL ADMINISTRATORS OF VOCATIONAL-TECHNICAL EDUCATION

Telephone Interview Schedule

Directions: Record responses on the answer form. The number in parentheses on this schedule corresponds to the column number on the form.

Introduction

Name of Recorder: _____

Representing: The Center for Vocational and Technical Education

Job of Recorder:

The Study: Information Needs of Local Administrators of Vocational and Technical Education

Overview: We are calling to determine three or less of your major professional problems, the information requirements, and your methods for getting information on the problems.

I. State in one sentence, if possible, a (another) major professional problem/concern requiring a decision which is of concern to you this week. (1) (Coding categories on attached sheet).

II. In this problem, _____, do you as a local director need information you do not now have in order to solve it? Yes or No.

Yes (2)

What type of information? (2) (Type)
- 01. Case studies
- 02. Demographic studies (annual reports, reports of data, statistics)
- 03. Expert opinion (books, references, personal evaluation)
- 07. Experimental research
- 08. Historical studies
- 09. Similarly involved or experienced persons/states/programs

10. Simulation
11. Survey
12. Value analysis
13. Other (proposals, applications)

Do you have difficulty finding information for this problem? (asterisk in I)

What form do you use? (2) (Process)

01. actual document (the data)
02. summary of documents
03. synthesis of documents
04. review and evaluation of documents

No (2)

What process will you use to make the decision?

01. Arbitrary
02. Directive
03. Reason
04. Projection
05. Other (specify)_____
06. Cooperative

* What quantity of information will you need to make the decision? (3)

01. Minimal
02. Moderate
03. Substantial

III. In this same problem,_____

* Approximate the total cost of your time and effort. (4) (over year, other problems considered)

01. Minimal
02. Moderate
03. Substantial

* What type of people within your school will you use to get information? (5) (operations, program planning, evaluation, (curriculum).

01. Information specialist (a professional nonsubstantive assistant that helps gather information such as librarians, RCU directors, etc.)
02. Substantive personnel (assistant directors, supervisors, teachers, etc.)

03. Technical/clerical
04. Administrators (higher level)
05. None

* Why will you use these people? (6)

01. Accessibility
02. Low cost
03. Familiarity of director
04. Type of data (knowledge)
05. Quality of information (background, experience)
06. Other (specify)_____

* Exclusive of II, what sources of materials (of the print and nonprint will you use to get information? (7)

01. Bibliographies
02. Books
03. Guides
04. Indexes
05. Periodicals
06. Reports, monographs, pamphlets (soft covers) bulletins
07. Transparencies
08. Filmstrips
09. Charts
10. Other (specify)_____

* Why will you use these sources of materials to get information? (8)

01. Accessibility
02. Low cost
03. Familiarity
04. Type of data
05. Quality of information
06. Current
07. Availability (limited)
08. Other (specify)_____

IV. Again in this problem,_____ which method will provide the information with the most impact? (9) (How)

01. Case Study
02. Consult--individuals and groups within and outside of vocational education division
03. Correspond
04. Delegate
05. Experiment

06. Files
07. Interview--visitation situation
08. Information agency--outside, private
09. Survey
10. Retrieval indexes
11. Telephone
12. Advisory council
13. Business, industry
14. Other (specify) (look at 6 on mail Q.)

_____.

*How often during the past year did you use this method? (10)

01. Occasionally
02. Often/frequently
03. Constantly

... Begin Again.

(When telephone interview is completed, ask for next appointment time).

*U.S.Government Printing Office: 1973 — 758-324/5488 Region 5-11